

**WHAT IS CLAIMED IS:**

- 1    1. A wearable computer system comprising:
  - 2    a computer unit wearable by a user; and
  - 3    a user interface having at least an audio-only mode of operation, the user interface
  - 4    comprising:
    - 5    an audio receiver wearable by the user and connectable to the computer unit such
    - 6    that the audio receiver receives voice signals from the user and provides the
    - 7    voice signals to the computer unit for processing; and
    - 8    a speaker adapted to be worn by the user and connectable to the computer unit
    - 9    such that the computer unit sends audio signals to the speaker to provide
    - 10   output to the user.
- 1    2. The wearable computer system of claim 1, further comprising an earpiece adapted to be
- 2    worn in an ear of the user, wherein the audio receiver and the speaker are housed in the
- 3    earpiece.
- 1    3. The wearable computer system of claim 1, further comprising an audio filter that filters
- 2    audio signals received by the audio receiver that do not originate with the user.
- 1    4. The wearable computer system of claim 3, wherein the audio-only user interface further
- 2    comprises a second audio receiver adapted to be worn by the user and connectable to the
- 3    computer unit such that the second audio receiver inputs audio signals from user's
- 4    surroundings.
- 1    5. The wearable computer system of claim 4, wherein the computer unit comprises:
  - 2    a processor that processes computer instructions; and
  - 3    computer memory having computer instructions that, when executed by the
  - 4    processor, cause the second audio receiver to be activated to receive audio signals
  - 5    when the computer unit receives a voice command from the first audio receiver.

1       6. The wearable computer system of claim 5, wherein the voice command that is received  
2       by the computer unit is a natural voice command spoken by the user that blends with the  
3       natural phrases and terminology commonly spoken by the user.

1       7. The wearable computer system of claim 1, further comprising an image recorder adapted  
2       to be worn by the user and connectable to the computer unit such that the image recorder  
3       may capture an image and forward the image to the computer unit for storage.

1       8. The wearable computer system of claim 1, wherein the computer unit includes a GPS  
2       sensor to input location information to the computer unit.

1       9. The wearable computer system of claim 1, wherein the user interface further includes a  
2       video display.

1       10. A wearable computer system comprising:  
2            a computer unit wearable by a user; and  
3            a user interface having an audio-only mode of operation, the user interface  
4            comprising:  
5            a first audio receiver adapted to be worn by the user and connectable to the  
6            computer unit such that the first audio receiver receives voice signals from the  
7            user and provides the voice signals to the computer unit for processing; and  
8            a second audio receiver adapted to be worn by the user and connectable to the  
9            computer unit such that the second audio receiver inputs audio signals from  
10           user's surroundings to the computer unit;  
11           wherein audio signals received by the first audio receiver that do not originate with  
12           the user are filtered with an audio filter.

1       11. The wearable computer system of claim 10, wherein the audio-only user interface further  
2       comprises a speaker adapted to be worn by the user and connectable to the computer unit  
3       such that the computer unit sends audio signals to the speaker to provide output to the  
4       user.

1 12. The wearable computer system of claim 11, further comprising an earpiece adapted to be  
2 worn in an ear of the user, wherein the first audio receiver and the speaker are housed in  
3 the earpiece.

1 13. The wearable computer system of claim 11, wherein the computer unit comprises:  
2 a processor that processes computer instructions; and  
3 computer memory having computer instructions that, when executed by the  
4 processor, cause the second audio receiver to be activated to receive audio signals  
5 when the computer unit receives a voice command from the first audio receiver.

1 14. The wearable computer system of claim 13, wherein the voice command that is received  
2 by the computer unit is a natural voice command spoken by the user that blends with the  
3 natural phrases and terminology commonly spoken by the user.

1 15. The wearable computer system of claim 10, further comprising an image recorder  
2 adapted to be worn by the user and connectable to the computer unit such that the image  
3 recorder may capture an image and forward the image to the computer unit for storage.

1 16. The wearable computer system of claim 10, wherein the computer unit includes a GPS  
2 sensor to input location information to the computer unit.

1 17. The wearable computer system of claim 10, wherein the user interface further includes a  
2 video display.

1 18. A wearable computer system comprising:  
2 an audio receiver, wearable by a user, that receives audio signals from the user and  
3 produces a corresponding electrical signal; and  
4 a computer unit that comprises:  
5 circuitry that receives and digitizes the electrical signal corresponding to the  
6 received audio signal;  
7 a processor; and

8 computer memory having instructions stored thereon that, when executed by  
9 the processor, perform the following operations:

10 processes the digitized signals and recognizes spoken words therein;  
11 determines whether the recognized spoken words constitute a  
12 predetermined natural voice command that blends with the natural  
13 phrases and terminology commonly spoken by the user; and  
14 responds to the predetermined natural voice commands from the user  
15 by prompting the processor to execute a predetermined function;

1 19. The wearable computer system of claim 18, further comprising a speaker adapted to be  
2 worn by the user and connectable to the computer unit, the speaker provides data output  
3 to the user, wherein data output directly to the user consists of audio.

1 20. The wearable computer system of claim 19, further comprising an earpiece adapted to be  
2 worn by the user, wherein the audio receiver and speaker are housed in the earpiece.

1 21. The wearable computer system of claim 18, further comprising an audio filter that filters  
2 audio signals received by the audio receiver that do not originate with the user.

1 22. The wearable computer system of claim 21, further comprising a second audio receiver  
2 that is adapted to be worn by the user and connectable to the computer unit, wherein the  
3 second audio receiver inputs audio signals from user's surroundings.

1 23. A method of operating a wearable computer system comprising a computer unit wearable  
2 by a user, and a user interface with at least an audio-only mode of operation, the method  
3 comprising:

4 continuously storing in a scrolling buffer audio information received by a microphone  
5 that receives ambient audio information at the user's location; and  
6 upon receiving an predetermined voice command from the user, storing in memory  
7 audio information present in the buffer for some period of time in relation to the  
8 time the audio command was received, so that the audio information stored in  
9 memory may be retrieved at a later time.

1 24. The method of operating a wearable computer system of claim 23, wherein the audio  
2 information stored in memory for later retrieval is received during a predetermined period  
3 of time immediately preceding receipt of the predetermined voice command.

1 25. The method of operating a wearable computer system of claim 23, wherein the audio  
2 information stored in memory for later retrieval is received during a predetermined period  
3 of time immediately after receipt of the predetermined voice command.

1 26. The method of operating a wearable computer system of claim 23, wherein the audio  
2 information stored in memory for later retrieval is received during a predetermined period  
3 of time including time occurring both before and after receipt of the predetermined voice  
4 command.

1 27. The method of operating a wearable computer system of claim 23, wherein the  
2 predetermined voice command is a natural voice command.

1 28. The method of operating the wearable computer system of claim 23, wherein the  
2 predetermined voice command is set up by the user.

1 29. A wearable computer system comprising:  
2 a computer unit wearable by a user; and  
3 first and second audio receivers each wearable by the user and connectable to the  
4 computer unit such that the first audio receiver receives voice signals from the  
5 user and provides the voice signals to the computer unit for processing, and the  
6 second audio receiver receives ambient audio signals from the user's surroundings  
7 and provides the ambient audio signals to the computer unit for processing;  
8 the computer unit further comprising:  
9 a scrolling buffer in which ambient audio information received during a preceding  
10 predetermined period of time is stored;  
11 memory; and  
12 circuitry that, upon receiving an predetermined voice command from the user,  
13 stores in the memory audio information present in the buffer for some period

of time in relation to the time the audio command was received, so that the audio information stored in memory may be retrieved at a later time.

30. The wearable computer system of claim 29, wherein the audio information stored in memory for later retrieval is received during a predetermined period of time immediately preceding receipt of the predetermined voice command.
31. The wearable computer system of claim 29, wherein the audio information stored in memory for later retrieval is received during a predetermined period of time immediately after receipt of the predetermined voice command.
32. The wearable computer system of claim 29, wherein the audio information stored in memory for later retrieval is received during a predetermined period of time including time occurring both before and after receipt of the predetermined voice command.
33. The wearable computer system of claim 29, wherein the predetermined voice command is a natural voice command.
34. The wearable computer system of claim 29, wherein the predetermined voice command is set up by the user.